## SOUTH CAROLINA DEPARTMENT OF DISABILITIES AND SPECIAL NEEDS

Volume 2 Issue 4 April 2003 Page 1 of 3



# FROM THE DESK OF THE DDSN MEDICAL CONSULTANT

#### **INSIDE THIS ISSUE:**



High Blood Pressure and Hypertension

Written by:
Graeme Johnson, M.D.
MEDICAL CONSULTANT
SCDDSN
3440 Harden Street Ext.
P.O. Box 4706
Columbia, SC 29240
PHONE:
(803) 898-9808
FAX:
(803) 898-9656
EMAIL:

gjohnson@ddsn.state.sc.us

**EXTRANET**:

http://ext.ddsn.sc.gov



## **HIGH BLOOD PRESSURE**

In South Carolina we have some challenging health issues. We have approximately 10,000 deaths a year in SC related to diseases of blood vessels and the heart (cardiovascular) and blood vessels and the brain (cerebro vascular) and we live in the "stroke belt" of the US. As the persons we care for age, we need to pay attention to this and can help by following up on "blood pressure" and its management. This can help the life experience and survival of our consumers and caregivers.

# WHAT IS BLOOD PRESSURE?

Blood pressure measures the pressure with which the blood flowing in the arteries pushes on the walls. When the heart pumps out blood, the pressure in the arteries rises then falls as the heart relaxes to fill again. The pressure in the arteries as it <u>pumps</u> is known as the <u>systolic</u> pressure. The <u>relaxation</u> pressure is known as <u>diastolic</u>. Blood pressure is two figures and we say a person with systolic pressure 140 and diastolic pressure 90 has a blood pressure of 140 over 90 written 140/90.

You know that the pressure is measured by using a pump-up pressure cuff on the arm and listening for changing blood flow. If your blood pressure is higher than 140 systolic or 90 diastolic for at least 3 checks then you are considered to have *high blood pressure or hypertension*. You are more likely to have high blood pressure if you are over 60, African American, or your family has a history of blood pressure. You cannot change these things but there are lifestyle issues that increase the chance that you may develop hypertension. We will look at these later, as these are things we can change and reduce the risk of having hypertension.

You have an increased chance of having high blood pressure if you

smoke, are overweight, do not exercise enough, have high cholesterol, and if you have a lot of stress.

## FROM THE DESK OF THE DDSN MEDICAL CONSULTANT

## Causes for Hypertension

The pressure of the blood against the artery walls will rise if the artery is narrowed or stiff; if there is an increase in the blood fluid in the arteries or if the heart is beating faster or forcefully than usual. Most often we cannot find a particular process that is causing any of these things to happen that leads to hypertension and 95% of people with high blood pressure have what we call *essential or primary hypertension*. This may be affecting both pressure measures or be isolated systolic hypertension (more common in older people) or isolated diastolic hypertension (more common in younger hypertension people).

Hypertension is called *secondary hypertension* in the 5% of people where a basic cause is found. In our consumers we will often look for kidney disease, thyroid, and other endocrine disorders and liver disease. We need to check for medicines such as decongestants, steroids, birth control pills, and some non-steroidal anti-inflammatory pain medications as they may cause high blood pressure. A woman who is pregnant is a special case where changes in fluid balance and vessel responses mean that we always monitor blood pressure carefully.

# What does high blood pressure do? Why worry?

If we have high blood pressure there is not usually anything that we notice – we do not usually have *symptoms*. Therefore; we should have our BP (blood pressure) checked occasionally as children and about every two years as adults as we will not have any warning symptoms until there are problems being caused by hypertension. This is important because if we develop continuing high blood pressure it makes it likely that we have *damage to our blood vessels* and greatly increases the chance that we can have a *stroke*, *heart disease*, *kidney*, *or eye* problems. Because these are serious problems we do need to pay attention. There is a lot of evidence from trials and studies showing that if we use good methods to *control the blood pressure* we *reduce* the chance of these nasty *complications*.

We recognize that the high blood pressure with the hardening of arteries as we age can stress the heart. If it is not able to pump enough oxygen rich blood to its muscle you may get *angina* or even a *heart attack*. If the pressure is high the pumping heart has to work hard and sometimes is not able to supply enough blood for the body's needs, this can cause *congestive heart failure*.

- High Blood pressure is common.
- Check if you are persons:

   Over 60
   African
   American
   Family History
- High blood pressure makes it more likely to have stroke, heart disease and kidney disease.
- If we control hypertension, we reduce risk of brain and heart attacks.
- High blood pressure has no symptoms; therefore,

CHECK IT





## SOUTH DEPARTMENT OF DISABILITIES AND SPECIAL NEEDS

## FROM THE DESK OF THE DDSN MEDICAL CONSULTANT

Page 3

Continued from page 2

In the vessels of the brain the high blood pressure may cause a *brain attack or stroke* by causing bleeding or a narrowing and blockage of the arteries. This can be challenging to recover from and some people die from strokes and their immediate complications. Some persons with high blood pressure have similar problems in the blood vessels of the eye causing vision problems.

The other organ that can be affected by hypertension and in turn may threaten a person's life is the kidney. Kidneys filter waste and as the blood pressure rises and blood vessels narrow a complex of things happen that mean that the kidney filters less waste and the person may need dialysis or a kidney transplant.

## What does it matter to our consumers?

We can all develop high blood pressure. We will not know without checking it. We can *beat it and reduce the risk of complications*. Consumers and caregivers desire a high standard of health care, so please get blood pressure checks and follow up on management so that we can all enjoy a good life.

We will look at ways to manage high blood pressure in the next notes.